

ADA Workshop: The Role of Dentistry in Bioterrorism (Chicago 2002)

- DDS community has a role in prevention, early recognition, reporting, response and follow-up
- Skills part of continuum

Potential Roles

- Medical augmentation
- Forensics
- Decontamination
- Infection control
- Educating the public
- Risk communication
- Surveillance
- Immunizations
- Rx distribution
- Ambulatory treatment sites
- Triage



Bioterrorism Conference ADA & USPHS March 2003

"I will consider dentistry an equal partner with all the other health professions at the table as we approach these challenges before us"

"What if we have to immunize a lot of people because of an impending threat? Could not dentists be involved? Could not dentists be involved in taking histories, screening patients, dealing with out-patient issues? Absolutely."

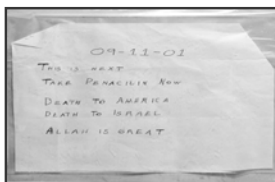
ADA News, April 2003

DISASTER PREPAREDNESS: THE DENTAL TEAM's ROLE

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Disaster Emergency Medicine
Readiness Training Center
UIC College of Dentistry
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ILLINOIS "All Hazard" Support During NATURAL & TERRORISM DISASTERS

- Floods
- Tornado
- Wind storms
- Building collapse
- Plane crashes
- Explosions
- Earthquakes
- Public Events
- Terrorism



ALL HAZARD THREATS



ALL HAZARD RESPONSE

- HIGH RISK REGIONS
- HIGH RISK CITIES
- RESPONSE SYSTEM
- MASS CASUALTY
- MASS INOCULATIONS
- PUBLIC HEALTH TEAMS
- PHYSICIANS
- NURSES
- PARAMEDICS
- DENTISTS
- HYGIENISTS



ONGOING TERRORISM

- INTERNATIONAL,
- RIGHT WING,
- CENTER,
- LEFT WING
- ANTI-GOVERNMENT Militias,
- EXTREME Religious Groups,
- ANARCHISTS
- ILLEGAL DRUG ACTIVITIES



Asymmetric, Simultaneous Attack "Not A Matter of IF, But When ... and How"



TERRORISM Has No Rules and No Boundaries

TERRORISM

- What should be the central vision and driving force behind specific preparations in our cities, states, nation, and with our global partners?

A. What is the threat intelligence data?

- **B. What is the ability to deliver capability?**

C. What are the new standards of International Law and Compliance?



HOMELAND SECURITY STRUCTURE

DNI, CIA, DIA, NSC, NRO, FBI, ETC

**Secretary
&
Deputy Secretary**

- Coast Guard
- Secret Service
- Citizenship & Immigration & Ombuds
- Civil Rights and Civil Liberties
- Legislative Affairs
- General Counsel
- Inspector General
- State & Local Coordination
- Private Sector Coordination
- International Affairs
- National Capital Region Coordination
- Counter-narcotics
- Small and Disadvantaged Business
- Privacy Officer
- Chief of Staff

Information
Analysis &
Infrastructure
Protection

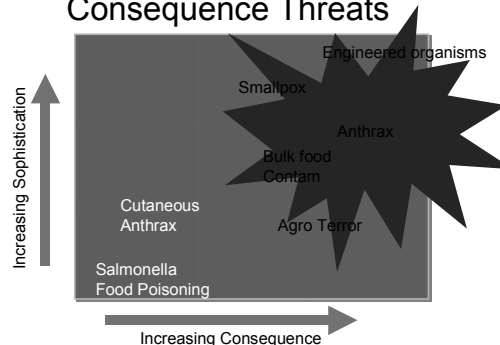
Science &
Technology

Border &
Transportation
Security

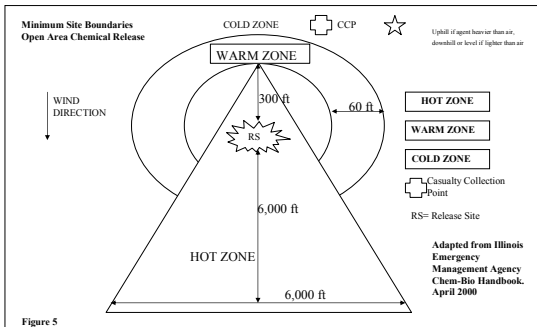
Emergency
Preparedness
& Emergency
Response

Management

DHS Initial Emphasis is on High Consequence Threats



GENERAL LAYOUT



CBRNE AND OTHERS

- Chemical
- Biological
- Radiological
- Nuclear
- Explosive
- Toxins
- Directed Energy
- Radiofrequency
- “War on Drugs”
- Narco-terrorism



DO YOU KNOW WHO TO CALL? ARE YOU PREPARED?

DO YOU HAVE “ADAPTABLE” PLANS?

- PERSONAL RESPONSE PLANS FOR YOUR FAMILY,
- RESPONSE PLANS FOR YOUR OFFICE,
- CONSTITUENT SOCIETY RESPONSE PLAN
- ARE YOU PREPARED FOR what you can and don't do?

ARE YOU TRAINED?

- TEAM WORK
- Current, relevant education & training
- PRACTICE EXERCISES
- DO YOU TRAIN THE WAY YOU WOULD RESPOND”?

FLEXIBLE ASSET Management?

- Local and City MRC TEAMS,
- County and STATE REMRT AND IMERT,
- FEDERAL TEAMS
- Pharmaceutical Support
- In-Place Patient Decontamination Capability

THE D-I-S-A-S-T-E-R PARADIGM Incident Command SYSTEM

(ICS)

STARTED: Managing
wildfires in early 1970's.

Interagency task force
Collaborative effort
Uniform structure
Clearly delineated
roles/responsibilities
“Chain of command”
CONTROLLED
Communications

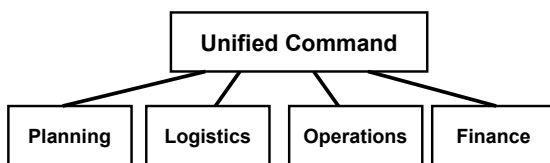


Incident Command System

“Born in Fire Service”

The Basics

“INCIDENT Commander”



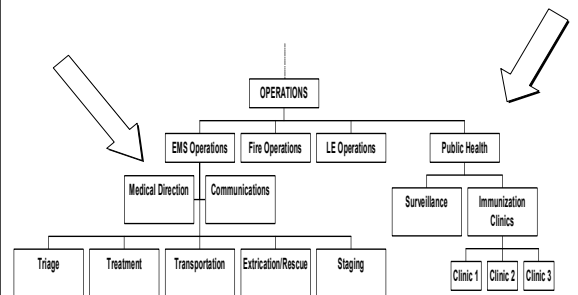
“Thinkers”

“Getters”

“Doers”

“Payers”

DISASTER OPERATIONS



D-I-S-A-S-T-E-R **Scene Safety & Security**

- Mental Preparation
- Training
- What could we encounter?
- “IF/THEN”:
- Plan initial tasks
- Be Flexible,
- STATE OF CHANGE



D-I-S-A-S-T-E-R **Scene Safety & Security**

- Don't be foolish
- Protect yourself!
- Your Team members first:
 - Protect your Office
 - Protect your patients
 - Protect the Public
 - Protect the Patients
 - Protect the Environment



D-I-S-A-S-T-E-R Support

- What do I need to get the job done?
- What *human resources* or skilled teams?
- What *agencies* are needed?
- What *facilities* will be needed?
- What *supplies* do I need?
- What *vehicles* are needed?

Decontamination

- None required for covert release
- Soap and water suitable for most overt release situations



Source: DoD Photo file

Illinois Incident Command

- SEOC: (IEMA)
 - State Emergency Operations Center
- PHOC: (Former IOHNO)
 - Public Health Operations Center
- IDPH : Manages all health care providers and the public health response

ILLINOIS NATIONAL GUARD **5th WMD CST TEAM**

- WMD AGENT DETECTION
- Civil Support Team
- 22 full-time Illinois Air and Army National Guard members
- Mobile BIO / CHEM / NUC DETECTION Laboratory
- Secure Satellite Communications capacity
- On scene in 2-10 hours
- NOT ARMED
- DECONTAMINATION
- MEDICAL ASSESSMENT
- SUPPORTS GOVERNOR



Illinois IMERT TEAMS

- EXPANDED General RESPONSE IMERT TEAM:
- Medical Doctor (MD / DO),
- Appropriately TRAINED DDS / DMD and RDH,
- Registered Nurse (RN) and or Physicians Assistant (PA)
- Emergency Medical Technician – Paramedic (EMT-P),
- Emergency Medical Technician – Basic (EMT-B) qualification.
- PharmD and Respiratory Therapist (RT),
- On scene within four hours.
- “COLD ZONE” TRIAGE CARE”
- Currently about 800+ medically trained volunteers that are located throughout the entire state.

AUTHORIZED TRAINING ORGANIZATIONS

- American Medical Association
- National Registry of Emergency Medical Technicians (NREMT),
- American College of Emergency Physicians (ACEP)
- Illinois College of Emergency Physicians (ICEP),
- Illinois Tactical Officers Association (ITOA)
- American Heart Association (ACLS, PALS),
- American College of Surgeons (ATLS).
- National Incident Management System (NIMS)
- UIC DEMRT CENTER



Tactical EMS (TEMS) Teams

- Normally Police Officers
- EMT Trained Officers
- TEMS Medics are trained in tactics,
- Medical care to the SWAT / TAC TEAM Operators.
- IDPH is currently working legalities through state and county agencies.
- MD, DDS, RN, EMT providers,
- Sofiscuated skills
- Incident Command



FUTURE RESPONDERS

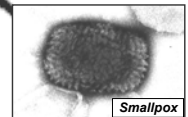
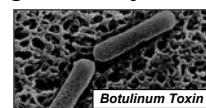
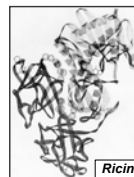
- Energy Absorbing Materials
- CB Sensors
- Integrated Functions
- Biomedical Monitoring
- Comm
- Video



CDC Category A Agent Review



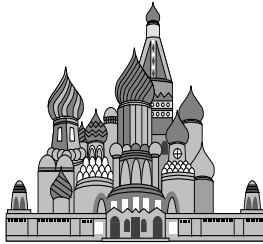
CLASSICAL BW Agents: Based on Soviet BW Priorities “Agents Likely to be Used”



Source: USAF/SGR

Category A Agents

- Anthrax
- Smallpox
- Plague
- Botulinum toxin
- Tularemia
- Viral hemorrhagic fevers



Smallpox, Plague, Anthrax, Botulism, VEE, Tularemia, Q Fever, Marburg Influenza, and chimaeras were key agents in the Soviet Programs.

Category B Agents

- Infectious Agents
 - Brucellosis (*Brucella* species)
 - Glanders (*Burkholderia mallei*)
 - Melioidosis (*Burkholderia pseudomallei*)
 - Psittacosis (*Chlamydia psittaci*)
 - Q fever (*Coxiella burnetii*)
 - Typhus (*Rickettsia prowazekii*)
 - Viral encephalitis
 - Venezuelan Equine Encephalitis
 - Eastern Equine Encephalitis
 - Western Equine Encephalitis (all alphaviruses)
 - Bio-toxins
 - Ricin toxin from *Ricinus communis* (castor beans)
 - Staphylococcal enterotoxin B
 - Epsilon toxin of *Clostridium perfringens*
 - Water / Food safety threats
 - *Vibrio cholerae*
 - *Cryptosporidium parvum*
- Food safety threats
- *Salmonella* species
 - *Escherichia coli* O157:H7
 - *Shigella*

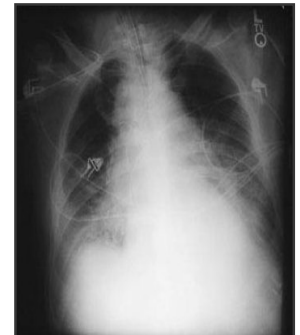
Anthrax

- *Bacillus anthracis*
- Endemic in animals worldwide with occasional human cases (usually cutaneous)
- Spores used for bio-attack
 - aerosolized directly
 - sent in mail/packages
- Three forms
 - Cutaneous,
 - Inhalation,
 - GI



Inhalation Anthrax

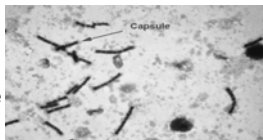
- Chest X-ray
- Pathognomonic
- widened mediastinum
- pleural effusions, but typically without infiltrates.
- Actual pneumonia uncommon
- Incubation: 2-43 days (may be longer)



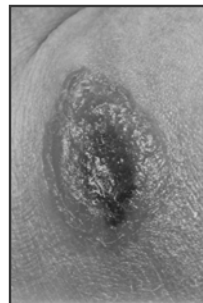
Inhalation Anthrax

Prodrome: fevers, malaise, dry cough, chest pain, dyspnea, myalgia.
Abrupt onset of Fulminant illness

- Widened mediastinum,
- pleural effusions;
- meningitis in ~50%
- Production of antiphagocytic capsule equals virulence factor

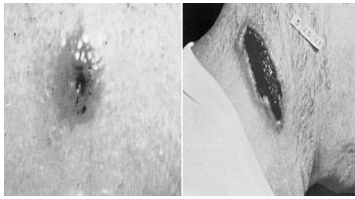


Cutaneous Anthrax



Source: AMA NDLS Program

CUTANEOUS *Bacillus anthracis*



Regional adenopathy and systemic symptoms (e.g., fever, malaise) may develop

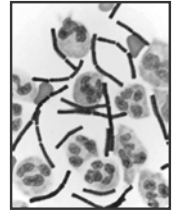
Source: AMA NDLS Program

Incubation: 1 to 7 days (may be up to 12 days)
Erythematous papule → ulcer → characteristic black eschar with surrounding erythema and edema



Anthrax in CSF—US index case

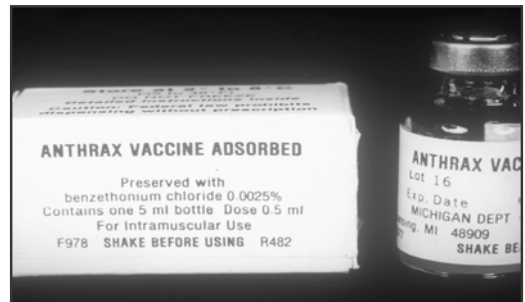
- Blood cultures
 - usually positive in <24h
- Gram stain
- Dx of pleural fluid or CSF
- Sputum is usually NOT positive by stain/culture
- Cutaneous disease
 - culture fluid from under eschar
- Nasal swabs are a poor test.



Anthrax - Treatment

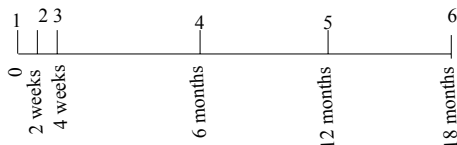
- DDS RESPONSE: 911 and call local Public Health
- IMMEDIATE DX AND INITIATION OF ANTIBIOTICS
- Ciprofloxacin 400 mg IV q12h
 - 10-15 mg/kg for children
 - other fluoroquinolones probably also effective
- OR
- Doxycycline 100 mg IV q12h
 - 2.2 mg/kg for children
- PLUS
- 1 or 2 additional antibiotics
 - (clindamycin, rifampin, vancomycin, penicillin, chloramphenicol, imipenem, clarithromycin).

ANTHRAX Vaccine



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Anthrax Vaccination Schedule

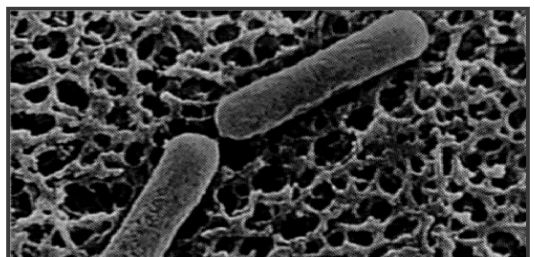


- 6 shots over 18 months, then annual booster
- Dosing schedule is 0.5 mL subcutaneously
- 0 (Day 0), 2 weeks (D+14D), 4 weeks (D+28D), 6 months (D+6M), 12 months (D+12M), and 18 months (D+18M)
- Yearly boosters
- Common for ranchers, sheepers, veterinarians.

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Botulism

Clostridium botulinum Toxin



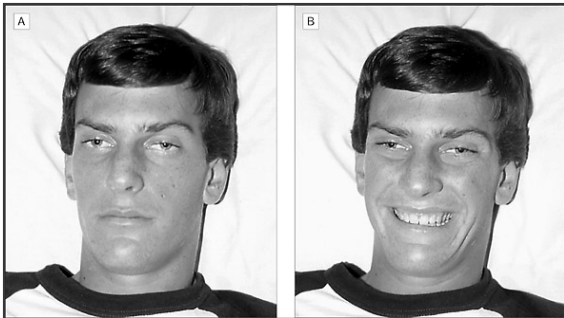
Botulism - General

- Caused by a toxin produced by *Clostridium botulinum*
- Sporadic cases and outbreaks caused by tainted foods
- For bioattack toxin could be delivered as an aerosol
- used to contaminate food/water supplies
- Not effective
- 12 to 36 hour “incubation”
- range 2 h to 8 days

Botulism - General

- Clinical diagnosis based on presentation essential
- Confirmatory diagnosis through toxin assay of blood Bulbar palsies: 9,10 & 12 Cranial Nerve Paralysis: a Anticholinergic action
- Ptosis (DROOPY EYELIDS),
 - blurred vision,
 - dry mouth, dysarthria, trouble swallowing
- Afebrile or without fever
- Descending skeletal muscle paralysis
- Death results from respiratory muscle paralysis
- “THE BOTOX LOOK”

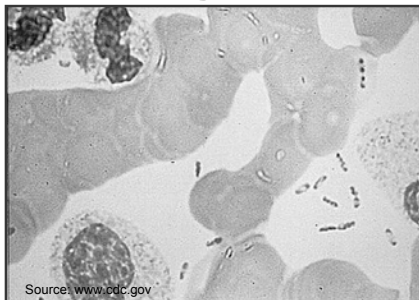
17 Year-Old
with Mild Botulism



Botulism - Treatment

- DDS RESPONSE: 911 and EMS
- Immediate Airway Supportive care
- Ventilator support for respiratory failure
- Antitoxin available through state health department
 - prevents further damage
 - does not alter current damage

Plague



Source: www.cdc.gov

Yersinia pestis

YERSINIA PESTIS (PLAGUE)

- The Plague was a devastating epidemic in Europe in the 14th century,
- Estimated to have killed about 25 million people within 5 years – a third of the European population,
- Plague was called “The Great Mortality” and “The Great Pestilence.”

Plague - General

- Endemic in animals many parts of the world
 - including rats,
 - prairie dogs in the southwestern US
- High potential as a BT agent
- Endemic form
 - spread to humans via a flea vector
 - bubonic form of the disease
- Bio-attack
 - Inhalation
 - most likely aerosolized
 - pneumonic plague

FLEE VECTOR



Bubonic Plague

Formation of
black boils
armpits,
Neck,
Groin,
diarrhea,
Fever
death

Buboes



Plague – Clinical Features

- Following Bio-attack
 - 1-6 day incubation
 - Abrupt onset
 - High fever
 - Chills, malaise
 - Cough with bloody sputum
 - Sepsis
 - Severe rapidly progressive pneumonia



Plague - Diagnosis

- if you suspect plague
- DDS needs to inform patient
- DDS to call MD/DO
- Local Public Health Office
- CXR with patchy infiltrates
- Culture of blood and sputum
- Gram stain may show characteristic “safety-pin” bipolar staining

Plague - Treatment

Preferred

- Streptomycin 1 g IM q12h
 - 15 mg/kg/dose for children
 - Avoid in pregnant women
- Gentamicin 5 mg /kg IM or IV qd
 - or 2 mg/kg load the 1.7 mg/kg q8h
 - for children use 2.5 mg/kg q8h



Plague - Treatment

Alternative

- Doxycycline 100 mg IV q12h
 - 2.2 mg/kg/dose q12h for children
- Ciprofloxacin 400 mg IV q12h
 - other fluoroquinolones probably effective
 - for children 15 mg/kg/dose q12h



Smallpox



Source: www.cdc.gov

Small Pox - Clinical Features

- One of the deadliest disease known
 - Mortality rate of
 - 30% -> (50%)
- US stopped vaccinating in 1972
- Declared eradicated by WHO in 1980
- Bio-attack:
 - Aerosolized virus
 - purposefully infected
 - terrorists

Small Pox - Clinical Features

- Rash
 - macules → papules → vesicles → pustules
 - unlike chicken pox, lesions don't appear in "crops"
- All lesions in area same stage of development
- Lesions are firm, deep, frequently umbilicated
- Rash scabs over in 1-2 weeks
 - scars after scabs separate

Small Pox - Clinical Features

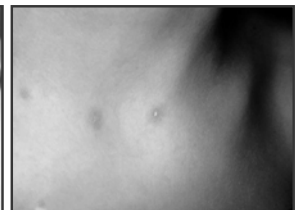
- Incubation period
 - 7-17 day (average 12d)
- Severe prodrome
 - 2-3 day of fever, severe myalgias, prostration, occ. n/v, delirium
 - 10% with light facial erythematous rash

Smallpox



Source: www.cdc.gov

Smallpox vs. Chickenpox



Chickenpox

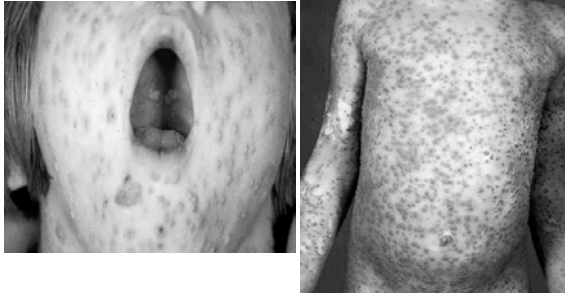
SMALL POX: FACE and appendages in ->

CHICKENPOX: TRUNK out ->

Smallpox

Source: www.cdc.gov

VARICELLA



Smallpox

The main diagnostic tool for smallpox



is the history and physical!

Smallpox - Treatment

- Notify public health authorities on clinical suspicion alone, before diagnosis is confirmed
- Clinical recognition essential = 911
- **GLOBAL RED ALERT**
- Immediate contact your hospital epidemiologist and the public health authorities
- All patients with disseminated vesicular/pustular rash should be screened
- Confirmatory tests available at CDC Vaccination
 - in the early stages of disease

Smallpox - Treatment

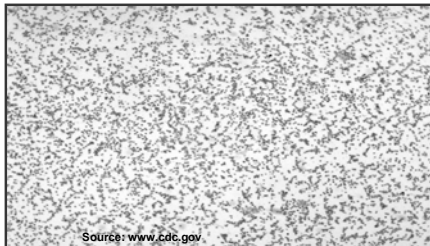
Prophylaxis:

- Vaccine is effective if given within 3 days of exposure

Isolation:

- Airborne and contact precautions
- Febrile illness after potential exposure should prompt isolation *before* rash starts
- Supportive care
 - Penicillinase-resistant antibiotics (for secondary infection)
 - Daily eye rinsing
 - Adequate hydration and nutrition
- No specific therapy has been FDA approved.
 - Topical idoxuridine for corneal lesions
 - Cidofovir?

Tularemia



Source: www.cdc.gov

Francisella tularensis

Francisella tularensis

Francisella tularensis as a BW agent

- WHO has estimated that an aerosol dispersal of 50kg of virulent *F. tularensis* over a metropolitan area with 5 million inhabitants would result in 250,000 incapacitating casualties, including 19,000 deaths
- Illness would be expected to persist for several weeks and disease relapses would occur for weeks or months

Francisella tularensis



Cervical lymphadenitis in a patient with pharyngeal tularemia. Acquired from ingesting contaminated food or water.

Tularemia - General

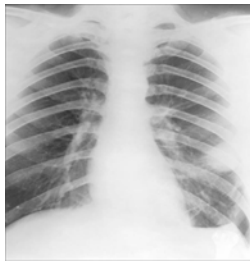
- Endemic in North America and Eurasia
- Sporadic human cases spread by ticks or biting flies
 - occasionally from direct contact with infected animals
- Bioattack
 - aerosolized bacteria
 - typhoidal tularemia with or without pneumonia

Francisella tularensis

Lower Left
Lung infiltrates,

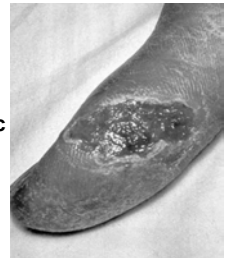
Tenting of
diaphragm

(caused by pleural
effusion,
and enlargement of
left hilum)



Tularemia - Clinical Features

- Bioattack
 - 3-5 day incubation (range 1-14 days)
 - Acute febrile illness with prostration
 - ~80% will have radiographic evidence of pneumonia in 1 or more lobes
 - May have associated conjunctivitis or skin ulcer with regional adenopathy



Tularemia - Diagnosis

- Culture of blood and sputum
- Gram negative occobacillus
 - confirmation may require reference laboratory
 - potential hazard to laboratory personnel
 - Laboratory must be notified if tularemia is suspected



Tularemia - Treatment

Preferred

- Streptomycin 1 g IM q12h
 - 15 mg/kg for children
- Gentamicin 5 mg / kg IM or IB q day
 - for children use 2.5 mg/kg q8h

Alternative

- Doxycycline 100 mg IV q12h
 - 2.2 mg/kg for children
- Ciprofloxacin 400 mg IV q12h
 - for children 15 mg/kg
 - other fluoroquinolones probably effective

Prophylaxis

- Doxycycline 100 mg PO bid
 - 2.2 mg/kg for children
- Ciprofloxacin 500 mg PO bid
 - 20 mg/kg for children
 - other fluoroquinolones probably effective
- Treat for 14 days

Isolation

Standard precautions

Viral Hemorrhagic Fevers



Source: www.cdc.gov

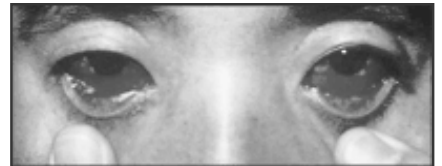
Ebola virus

VHF - General

- Naturally occurring disease
 - transmitted to humans by contact with infected animals or arthropod vectors.
 - Sporadic outbreaks in Africa, parts of Asia and Europe
- VHF viruses as bioterrorism agents
 - Weaponized by several countries
 - Aerosolization
- Case fatality rates
 - Omsk hemorrhagic fever 0.5%
 - Ebola fatality: 90%
 - Others ?

VHF - General

- Incubation 2 - 21 days
 - depends on virus
- Initial presentation
 - Nonspecific prodrome (fever, myalgias, headache, abdominal pain, prostration)
 - Exam may show only flushing of face and chest, conjunctival injection, and petechiae
- Disease progresses to shock and generalized mucous membrane hemorrhage Clinical presentation
 - thrombocytopenia, leukopenia, AST elevation common



Bolivian Hemorrhagic Fever



Marburg Disease

VHF - Treatment

- Supportive care
- Ribavirin may be useful
 - adults and children: 30 mg/kg IV load (max 2 g)
 - then 16 mg/kg (max 1g) q6h x 4 days
 - then 8 mg/kg (max 500 mg) IV q8h for 6 days
 - an oral dosing regimen is also available

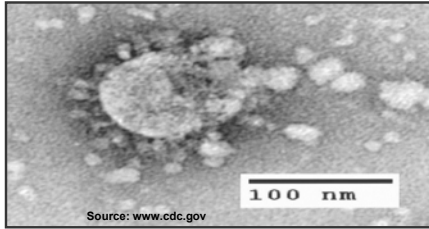
Prophylaxis: None at this time

VHF - Treatment

Provider and Office Isolation:

- Blood and bodily fluids extremely infectious
- Liquid-impervious protective coverings, including leg and shoe coverings
- Double gloves
- N-95 or better respirators
- Face shields or goggles
- Negative pressure room

SARS



Severe Acute Respiratory Syndrome

SARS - General

- Once suspected as escaped Bio agent.
- Today Not considered a BT agent.
 - Significant public health threat
 - Emerging respiratory infectious disease
- SARS associated coronavirus (SARS CoV).
- World-wide outbreak starting in February 2003
 - Infected numerous health care workers
 - Case fatality rate of approximately 10%.
- Will likely re-emerge in the near future.

SARS Clinical Features

- Incubation Period:
 - typically 2--7 days (up to 10 days)
- Presentation:
 - “Flu like” prodrome
 - fever, chills, rigors, headache, muscle aches, and feeling ill

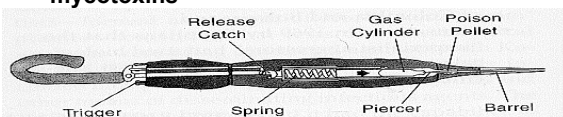
SARS Clinical Features

- May have diarrhea.
- Respiratory symptoms on day 3 to 7
 - Cough
 - Shortness of breath
 - Respiratory failure requiring intubation in some.

Toxins

- Botulinum toxins
- Staph Enterotoxin
- Ricin
- Saxitoxin
- Trichothecene mycotoxins

Georgi Markov
Killed with 500
Micrograms



RICIN LACED LETTERS SENT TO THE SENATE

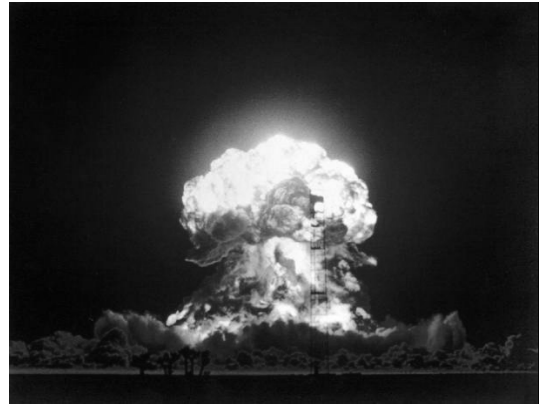
- CDC CATEGORY B
- CASTER BEAN PLANT
- Toxin extracted from CASTOR BEAN pulp,
- Five times more toxic than VX
- castor beans processed globally for commercial uses,
- Inhibits cellular protein synthesis,
- Inactivated by heat (80° C for 10 min) or chlorine.



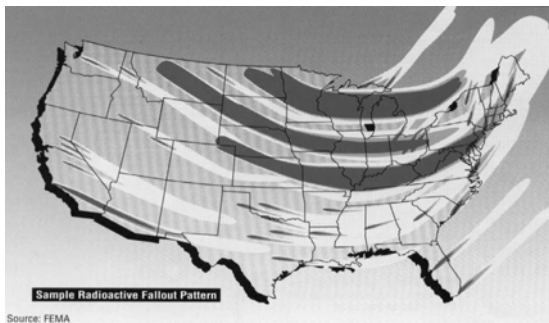
AGENTS OF CONCERN

➤ CHEMICAL

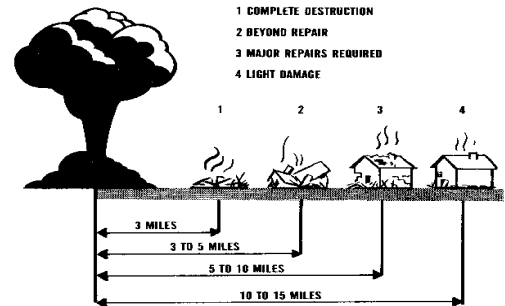
- NERVE AGENTS:-
HIGHLY LIKELY
- BLISTER AGENTS:
HIGHLY LIKELY
- BLOOD AGENTS: NOT
LIKELY
- CHOKING AGENTS:
NOT LIKELY
- BOMB BLASTS
- AEROSOLS



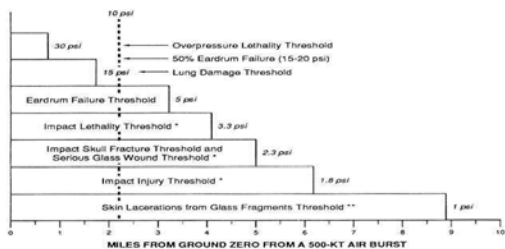
BLAST AND FALLOUT



NUCLEAR AND "OVER-PRESSURE" WEAPONS - DESTRUCTIVENESS



GENERAL MEDICAL EFFECTS



* For impact injury or death to occur at stated overpressure, the body must be thrown at least 10 feet before impact. Otherwise, a higher overpressure is required to achieve necessary velocity.

** Glass fragments must also travel at least 10 feet.

The Radiological Threat



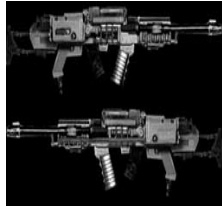
"The gravest danger our Nation faces lies at the crossroads of radicalism and technology. Our enemies have openly declared that they are seeking weapons of mass destruction, and evidence indicates that they are doing so with determination. The United States will not allow these efforts to succeed... History will judge harshly those who saw this coming danger but failed to act. In the new world we have entered, the only path to peace and security is the path of action." President George W. Bush, The National Security Strategy of the United States of America, September 17, 2002

- Greece prepares for "dirty bomb" threat
Reuters News Service, Tue 25 May, 2004
- Vienna, Austria, Jun. 2 (UPI) -- The U.N. nuclear watchdog agency says it can help in efforts to detect smuggling of nuclear material and equipment for so-called dirty bombs.
- U.N.'s IAEA warns on nuke smuggling, Washington Times, 3 Jun 04



LASERS

- The UN banned “blinding” lasers in 1998,
- NO CONVENTION yet on laser weapons,
- Gas
- Chemical
- Crystal
- Diode
- Other energies



TRAINING THE ORAL HEALTH CARE PROVIDER



AMA NDLS Family of Courses

A comprehensive, nationally-standardized family of all-hazards training programs developed by the NDLS consortium of academic, state, and federal centers.



BDLS Course Description

- Didactic - 8 hours
- Distance learning option
- For healthcare providers
 - Physicians, Dentists, Nurses,
 - Paramedics, EMTs
 - Licensed Providers
 - Public health
- Provider status & course credit awarded
 - Course completion
 - Written examination passage
- BDLS providers are eligible to take ADLS



BDLS Course Outline

- Overview & Concept
- DISASTER Paradigm
- Natural Disasters
- Explosive & Traumatic
- Nuclear & Radiological
- Biological Agents
- Chemical Agents
- Psychosocial Aspects
- Public Health System
- Examination
- Course evaluations

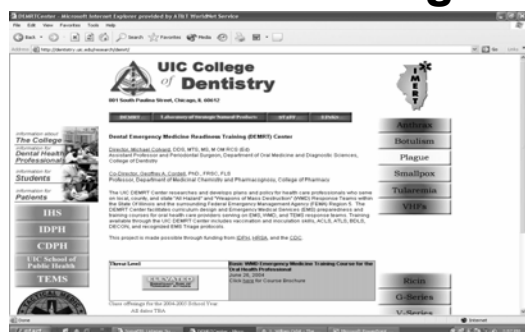


ADLS Course Description

- 16 hour class (8-didactic, 8-practical)
- Advanced practicum “hands on” course
- Meets Hazmat Operations-level training requirement
- (CFR 1910.120)
- Must have completed BDLS course
- Provider status & course credit awarded



www.demrt.org



WHAT CAN I DO ?

- **SIMPLE LOGISTICAL VOLUNTEERISM,**
- **Immediate FIRST RESPONDER Care (CPR, ACLS, ATLS),**
- **City and County Medical Reserve Corps (MRC's),**
- **REMRT and or State MERT SERVICE.**
- **Disaster Mortuary Teams (DMORT),**

WHAT CAN I DO ?

- **PRIVATE PRACTICE TRIAGE & CASUALTY CARE CENTERS,**
- **PRIVATE PRACTICE IMMUNIZATION CENTERS,**
- **PROVIDING FORENSIC IDENTIFICATION, LEADERSHIP AND SUPPORT, (DMORT),**
- **IN HOSPITAL ER, GPR, PEDO, AND/OR STAFF POSITIONS,**

WHAT CAN I DO ?

- **SERVE ON CITY, COUNTY, STATE Disaster RESPONSE PLANNING GROUPS,**
- **SERVE ON LOCAL , CITY, REGIONAL, STATE, and NATIONAL CIVIL POLICY AND PLANNING POSITIONS,**
- **SERVE IN MILITARY AND HOMELAND SECURITY POSITIONS,**
- **SERVE IN UNIVERSITY AND PROFESSIONAL ASSOCIATION Continuing Education COURSES,**
- **SEEK ELECTED POLICY AND PLANNING POSITIONS.**

WHO WILL CE, CREDENTIAL, and LICENSURE ?

- **ADA, (coordinating with AMA and ADEA) doing national definitions and policy for DDS,**
- **ADEA, doing curriculum changes to train the DDS,**
- **AMA, ADA and AGD, some CE efforts in future,**
- **EACH STATE DEFINES THE SCOPE OF PRACTICE THAT A DDS / RDH WILL HAVE,**
- **ROLE IN THE STATE: KEY PLAYER in STATE PROCESS,**
- **The AMA DEFINES THE DDS AS A TRIAGE PROVIDER.**

DuPage County Health Department Preparedness Objectives

- **TOP OFF 2 Drill tested county's preparedness for mass medication distribution (2003)**
- **Medical Reserve Corps established (2003)**
- **Staff training sessions (2003-2004)**
- **Volunteer training session held repeating TOP OFF 2 simulation (2004)**

DuPage County Health Department Preparedness Objectives

- **Basic Disaster Life Support (BDLS)**
training for staff and key community
dentists/hygienists (2004)
- **Advanced Disaster Life Support (ADLS)**
training for staff and key community
dentists/hygienists (2005)
- **Outreach to community dental team**
members to recruit into DuPage
Medical Reserve Corps and BDLS
training sessions (2005)

DuPage County Health Department Role of the Dental Team in Disaster Preparedness

- **Client education**
- **Client triage**
- **Disease surveillance**
- **First Aid**
- **Health history review**
- **Medication distribution**
- **Site charge person**

DuPage County Health Department Local and national websites for the Medical Reserve Corps and preparedness information:

www.dupagehealth.org
www.dupageco.org
www.medicalreservecorps.org
www.ready.gov
www.citizencorpsdupage.org

HOW TO INVOLVE AND PREPARE YOUR LOCAL DENTAL SOCIETY FOR AN EMS RESPONSE

*J. Barry Howell, DDS
President, Illini District Dental Society
Member of IMERT*

THE FIRST STEP - INFORMATION

- **Schedule a CE meeting with a
qualified speaker.**
- **Identify members in the dental
society who are interested in
participating.**
- **Schedule an organizational
meeting.**

WHO TO INVITE TO THE MEETING

- **All interested dental members:
Dentists, Hygienists, and
Auxiliary Personnel**
- **The local Fire Chief**
- **The local EMS Director**

GETTING ORGANIZED

- **Identify levels of experience with EMS situations: Military, Paramedic, etc..**
- **Provide information on IMERT / DEMRT membership**
- **Elect or appoint an Dental EMS Director**

THE LOCAL DENTAL SOCIETY RESPONSE PLAN – ASSETS TO THE COMMUNITY

Personnel – Dentists, Hygienists and Dental Auxiliaries

- **Diagnose**
- **Monitor**
- **Triage**
- **Dispense Medications**
- **Infection Control**
- **Decontamination**

DENTAL OFFICES

- **Located throughout the community**
- **Sterilization Units**
- **Suction Equipment**
- **Radiology Equipment**
- **Instruments and Disposable Supplies**
- **Air / Gas Lines**
- **Can be used as distribution centers for medications or inoculations**

IMERT /DMERT MEMBERSHIP

- **Necessary for recognition by the state in the event of an emergency**
- **Training:**
 - **Boot Camp**
 - **Incident Command System**
 - **Response to Terrorism / WMD**

WHAT HAPPENS WHEN A DISASTER STRIKES

**Develop a call list and
keep it current!**

STAY INVOLVED

- **Participate in local / state disaster simulations**
- **Attend continuing education courses**
- **Rotate leadership**
- **Involve new members**